

Chapter 13: Index

A

abbreviations and acronyms 12-1

aesthetics *See* visual resources

agency coordination 8-1

agriculture *See* farmland, grazing allotments

air quality

- current conditions 3-30
- future impacts 4-49
 - build alternatives 4-53
 - cumulative 4-57
 - emissions from construction 4-50
 - emissions from operation 4-51
 - mitigation 4-57
 - No-Build Alternative 4-52
- major air pollutants in the study area 3-30, 4-49
- modeling methods 4-53
- National Ambient Air Quality Standards (NAAQS) 3-31

airports 1-11

- St. George replacement airport 1-19

alternatives 2-1

- alignment options considered 2-18
- comparison of environmental impacts (summary) S-7, 2-31
- development process S-1, 2-1, 2-15, 2-22
- not studied in detail
 - arterial roads 2-1
 - public transit 2-3
 - transportation management strategies 2-2
- studied in detail
 - 2800 West Alternative S-3, S-5, 2-29, 2-36
 - 3400 West Alternative S-3, S-5, 2-28, 2-36
 - 4300 West Alternative S-3, S-4, 2-26, 2-35
 - No-Build Alternative S-3, 2-24, 2-35

ambulance services *See* emergency services

archaeological sites

- current conditions 3-64
- future impacts 4-120, 5-4
 - 2800 West Alternative 4-122
 - 3400 West Alternative 4-122
 - 4300 West Alternative 4-121
 - cumulative 4-125
 - mitigation 4-122
 - No-Build Alternative 4-121

B

bald eagle

- current conditions 3-58
- future impacts 4-106, 4-107
- mitigation 4-114

bearclaw poppy

- current conditions 3-56
- future impacts 4-99, 4-100
- cumulative 4-116
- mitigation 4-103

bicycle trails *See* trail systems

bus service *See* public transit

C

carbon monoxide *See* air quality

churches

- current conditions 3-15
- future impacts
 - build alternatives 4-30
 - No-Build Alternative 4-29

comments, public 8-1

community cohesion *See* neighborhoods and communities

construction impacts

- build alternatives 4-136
- mitigation 4-139
- No-Build Alternative 4-136

cultural resources

- current conditions 3-64
- future impacts 4-120
 - 2800 West Alternative 4-122
 - 3400 West Alternative 4-122
 - 4300 West Alternative 4-121
 - cumulative 4-125
 - mitigation 4-122
 - No-Build Alternative 4-121

cumulative impacts

- air quality 4-57
- cultural resources 4-125
- definition of 4-3
- land use 4-16
- noise 4-67
- threatened and endangered species 4-116
- wildlife habitat 4-92

D

demographics *See* population
desert tortoise
 current conditions 3-58
 future impacts 4-110
 cumulative 4-118
 mitigation 4-114
displacements *See* relocations
distribution list 7-1
dry washes
 current conditions 3-40
 future impacts
 build alternatives 4-72, 4-80
 No-Build Alternative 4-79

E

economics
 current conditions 3-23
 future impacts 4-43
 local 4-45
 regional 4-43
emergency services
 current conditions 3-16
 future impacts 4-30
emissions *See* air quality
employment
 current conditions 3-23
 projected growth 1-17
endangered species *See* threatened and endangered species
energy
 efficiency measures 6-11
 future construction-related impacts
 build alternatives 4-135
 No-Build Alternative 4-135
 future direct impacts 4-134
 build alternatives 4-135
 No-Build Alternative 4-135
 usage 6-11
environmental impacts 4-1
 comparison of alternatives (summary) S-7, 2-31
environmental justice populations
 current conditions 3-10
 future impacts 4-25
 build alternatives 4-26
 mitigation 4-27
 No-Build Alternative 4-26
equestrian trails *See* trail systems

F

farmland
 current conditions 3-7
 future impacts 4-18
 build alternatives 4-19, 4-20
 mitigation 4-20, 4-21
 No-Build Alternative 4-18, 4-20
fire protection services *See* emergency services
floodplains
 current conditions 3-51
 future impacts 4-94
 build alternatives 4-95
 No-Build Alternative 4-95

G

glossary 12-1
golden eagle
 current conditions 3-50
 future impacts
 2800 West Alternative 4-86
 mitigation 4-87
 No-Build Alternative 4-85
grazing allotments
 current conditions 3-8
 future impacts 4-22
 build alternatives 4-22
 mitigation 4-25
 No-Build Alternative 4-22
groundwater
 current conditions 3-44
 future impacts 4-77
 build alternatives 4-77
 No-Build Alternative 4-77

H

habitat *See also* wildlife
 current conditions 3-48
 future impacts 4-82
 2800 West Alternative 4-84
 3400 West Alternative 4-84
 4300 West Alternative 4-83
 mitigation 4-84
 No-Build Alternative 4-82
hazardous waste sites
 current conditions 3-69
 future impacts 4-127
 2800 West Alternative 4-128
 3400 West Alternative 4-128
 4300 West Alternative 4-128
 mitigation 4-128
 No-Build Alternative 4-127

highway patrol services *See* emergency services

historic sites

- current conditions 3-64
- future impacts 4-120, 5-4
 - 2800 West Alternative 4-122
 - 3400 West Alternative 4-122
 - 4300 West Alternative 4-121
- cumulative 4-125
- mitigation 4-122
- No-Build Alternative 4-121

Holmgren milkvetch

- current conditions 3-57
- future impacts 4-99, 4-101
 - cumulative 4-117
 - mitigation 4-105

hospitals

- current conditions 3-15
- future impacts
 - build alternatives 4-30
 - No-Build Alternative 4-29

households, projected growth 1-16, 6-2

I

indirect effects, definition of 4-1

induced demand 2-12

infrastructure costs 6-10

invasive plants 4-83

irreversible and irretrievable commitment of resources 4-140

J

joint development 3-27, 4-47

L

land use

- conventional vs. compact development 6-4
 - current conditions 3-1
 - future impacts 4-4
 - 2800 West Alternative 4-13
 - 3400 West Alternative 4-13
 - 4300 West Alternative 4-6
 - consistency with plans and policies 4-13
 - cumulative 4-16
 - No-Build Alternative 4-4
 - smart growth planning initiatives 6-15
- latent demand 2-12

level of service 1-12

- categories 1-12
- current conditions 1-14
- definition of 1-12
- future projections 1-19, 2-7
- planning goals 1-13

list of preparers 10-1

LOS *See* level of service

low-income populations

- current conditions 3-12
- future impacts
 - build alternatives 4-26
 - mitigation 4-27
 - No-Build Alternative 4-26

M

mass transit *See* public transit

meetings, public 8-5

minority populations

- current conditions 3-11
- future impacts
 - build alternatives 4-26
 - mitigation 4-27
 - No-Build Alternative 4-26

mitigation 4-145

- air quality 4-57, 4-147
- construction 4-139, 4-153
- cultural resources 4-122, 4-152
- endangered plants 4-103, 4-150
- endangered wildlife 4-114, 4-151
- environmental justice populations 4-27, 4-146
- farmland 4-20, 4-21, 4-146
- grazing allotments 4-25, 4-146
- hazardous waste sites 4-128, 4-153
- noise 4-65, 4-147
- paleontological sites 4-124, 4-153
- recreation resources 4-39, 4-48, 4-146
- relocations 4-42, 4-147
- Section 4(f) properties 4-39, 4-153
- surface water quality 4-76, 4-148
- visual resources 4-132, 4-134, 4-153
- wells 4-78, 4-148
- wildlife and habitat 4-84, 4-86, 4-148, 4-149

N

National Ambient Air Quality Standards (NAAQS) 3-31

Native American consultation 3-67

neighborhoods and communities

current conditions 3-14

future impacts 4-27

build alternatives 4-28

No-Build Alternative 4-27

nitrogen oxides *See* air quality

noise

current conditions 3-35

examples of noise levels 3-36

future impacts 4-60

2800 West Alternative 4-62

3400 West Alternative 4-61

4300 West Alternative 4-61

cumulative 4-67

mitigation 4-65

No-Build Alternative 4-60

modeling results 4-63, 4-66, 4-67

standards 3-36

O

ozone *See* air quality

P

paleontological sites

current conditions 3-64

future impacts 4-123

2800 West Alternative 4-124

3400 West Alternative 4-124

4300 West Alternative 4-123

mitigation 4-124

No-Build Alternative 4-123

particulate matter *See* air quality

pedestrian trails *See* trail systems

permits and clearances 4-141

plants

current conditions 3-48

future impacts 4-99

invasive species 4-83

police services *See* emergency services

population *See also* environmental justice

populations, low-income populations, minority

populations, senior citizens

current conditions 3-9

projected growth 1-15, 6-2

smart growth development scenarios 6-13

preferred alternative (2800 West Alternative) 2-37

preparers of this EIS 10-1

proposed action, description of S-1, 1-2

public involvement 8-4

public transit 1-9, 1-11, 2-3

bus service 1-10, 2-3

rail service 2-4

purpose of and need for the project 1-3, 1-22, 1-23

Q

quality of life

current conditions 3-17

future impacts 4-32

build alternatives 4-33

No-Build Alternative 4-32

R

rail transit *See* public transit

recreation resources

current conditions 3-18

future impacts 4-35

2800 West Alternative 4-38

3400 West Alternative 4-38

4300 West Alternative 4-36

mitigation 4-39

No-Build Alternative 4-35

Red Cliffs Desert Reserve

as a limit to growth 2-5, 3-6

as desert tortoise habitat S-1, 2-5, 3-58, 4-82, 4-110, 4-119

connecting trail systems 3-28

referenced works 9-1

relocations

farms 4-42

mitigation 4-42

policies 3-22

residences 4-41

summary 4-43

roadway

current system 1-7

deficiencies 1-15

future projections 4-2

safety 1-15, 3-17, 4-34

S

schools

current conditions 3-15

future impacts

build alternatives 4-30

No-Build Alternative 4-29

Section 4(f) properties 5-1

mitigation 4-39

senior citizens
 current conditions 3-13
 future impacts
 build alternatives 4-26
 mitigation 4-27
 No-Build Alternative 4-26
 vulnerabilities of 3-14
 short-term uses versus long-term productivity 4-139
 smart growth 6-1
 development scenarios 6-13
 energy usage 6-11
 implementation measures 6-18
 infrastructure costs 6-10
 land use 6-4, 6-6
 local planning initiatives 6-15
 transportation efficiency 6-12
 water usage 6-7
 social environment
 current conditions 3-9
 future impacts 4-25
 surface water
 current conditions 3-40
 future impacts 4-71
 2800 West Alternative 4-76
 3400 West Alternative 4-76
 4300 West Alternative 4-72
 mitigation 4-76
 No-Build Alternative 4-71

T

tax base 3-26
 threatened and endangered species
 current conditions 3-53
 birds 3-58, 3-60
 fish 3-59, 3-62
 mammals 3-63
 plants 3-56, 3-59
 reptiles 3-58, 3-61
 definitions 3-55
 future impacts 4-96
 birds 4-106, 4-107
 cumulative 4-116
 fish 4-106, 4-109
 mammals 4-106, 4-112
 plants 4-99
 reptiles 4-106, 4-110
 mitigation
 plants 4-103
 wildlife 4-114
 traffic *See* level of service

trail systems
 current conditions
 existing trails 1-11, 3-21, 3-28
 proposed trails 3-29
 future impacts 5-5
 existing trails 4-37, 4-39, 4-48
 mitigation 4-39, 4-48
 proposed trails 4-47, 4-48
 transit *See* public transit
 transportation demand 1-18
 induced and latent demand 2-12
 transportation management strategies 1-10, 2-2
 travel patterns
 current conditions 1-7, 3-15
 future impacts 4-28
 build alternatives 4-29
 No-Build Alternative 4-28

U

utilities, public
 current conditions 3-16
 future impacts 4-31

V

vegetation *See* habitat, plants
 Virgin River
 current conditions 3-41
 future impacts
 2800 West Alternative 4-76
 3400 West Alternative 4-76
 4300 West Alternative 4-72
 mitigation 4-76

visual resources
 current conditions 3-70
 future construction-related impacts 4-129
 build alternatives 4-130
 No-Build Alternative 4-129
 future direct impacts 4-130
 build alternatives 4-130, 4-134
 mitigation 4-132, 4-134
 No-Build Alternative 4-130, 4-134
 visual impact ratings 4-133
 volatile organic compounds *See* air quality

W

water bodies
 current conditions 3-48
 future impacts 4-81
 build alternatives 4-81
 No-Build Alternative 4-81

- water consumption 6-7
 - efficiency measures 6-8
 - xeriscaping 6-9
- water quality *See also* dry washes, groundwater, surface water, Virgin River, water bodies, waters of the U.S., wells, wetlands
 - current conditions 3-39
 - future impacts 4-70
 - regulations 3-39
 - typical contaminants from highway runoff 4-70
- waters of the U.S.
 - current conditions 3-46
 - future impacts 4-79
 - build alternatives 4-80
 - No-Build Alternative 4-79
- Web site for Southern Corridor project 8-9
- wells
 - current conditions 3-45
 - future impacts 4-77
 - 2800 West Alternative 4-78
 - 3400 West Alternative 4-78
 - 4300 West Alternative 4-78
 - mitigation 4-78
 - No-Build Alternative 4-78
- wetlands
 - current conditions 3-46
 - future impacts 4-79
 - build alternatives 4-80
 - No-Build Alternative 4-79
- wild and scenic rivers 3-73
- wildlife *See also* habitat
 - cumulative impacts 4-92
 - current conditions 3-49
 - future direct impacts
 - 2800 West Alternative 4-86
 - 3400 West Alternative 4-86
 - 4300 West Alternative 4-85
 - mitigation 4-86
 - No-Build Alternative 4-85
 - future indirect impacts
 - build alternatives 4-87
 - mitigation 4-91
 - No-Build Alternative 4-87
- works cited 9-1

X

- xeriscaping 6-9

Z

- Zion National Park
 - current air quality 3-33
 - future impacts 4-58